

REMARKS

This paper is responsive to the Office Action mailed January 3, 2007. Claims 20-30 were pending in the subject application before submission of this paper. Claims 20-23 have been canceled. Claims 24-30 are currently pending. Reconsideration of the claims in view of the following remarks is respectfully requested.

Claim Rejections - 35 U.S.C. § 103

Claims 20-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,542,610 issued to *Traw* in view of U.S. Patent No. 6,282,654 issued to *Ikeda*, and further in view of U.S. Publication No. 2001/0012440 to *Itoi*. Applicants respectfully submit that all pending claims are allowable.

Claim 24 recites, in part, "during transmission of the streaming data from the recording medium to the destination apparatus, the interface circuit changes the copy control information, refuses to perform an authentication process with any apparatus other than the destination apparatus, and after the transmission of the streaming data, deletes the streaming data on the recording medium."

Traw teaches an Authentication and Key Exchange Subsystem that is found in both Senders and Receivers of protected content. (Column 11, lines 2-4).

Claim 24 refers to a third party in addition to a sender and a receiver. As shown in Figure 9, during transmission of the streaming data from a source device to a destination apparatus (1103 to 1116), an authentication request from a third party (the second sink device) is rejected (1114 and 1115). Thus, only one streaming data transmission is allowed at the same time. This is different from both senders and receivers having an authentication and key exchange subsystem.

Neither *Traw* nor any of the other cited references, alone or in combination, teach all of the features recited in independent claim 24. Specifically, *Traw* does not teach "during transmission of the streaming data from the recording medium to the destination apparatus, the

interface circuit... refuses to perform an authentication process with any apparatus other than the destination apparatus." For at least this reason, claim 24 is allowable over the cited art.

Claim 25 recites, in part, "when transmitting the streaming data from the recording medium to the destination apparatus, the interface circuit changes the copy control information, disconnects channels other than the channel used for transmitting the streaming data to the destination apparatus, and after the transmission of the streaming data, deletes the streaming data on the recording medium."

The Office Action states that step 212 in Fig. 2 of *Traw* discloses this feature of Applicants' invention. *Traw* states that "the content transfer over the preliminary content channel is terminated and content transfer over the full content channel is begun." (Column 5, lines 44-46). In other words, plural channels are used between one sender and one receiver, and the channel for transfer is switched during the content transfer. This is different from "disconnect[ing] channels other than the channel used for transmitting the streaming data to the destination apparatus" as recited in claim 25.

Similar to claim 24 (discussed above), claim 25 also describes a third party in addition to a sender and a receiver. Referring to page 25, line 12 to page 26, line 9 of Applicants' specification, the channel between the transmitting device (interface circuit) and the device other than the destination device is disconnected. In other words, only one channel can be established at the same time for the streaming data transmission. This is different than plural channels between one sender and one receiver, and one of the channels is used for the content transfer, as disclosed in *Traw*.

Neither *Traw* nor any of the other cited references, alone or in combination, teach all of the features recited in independent claim 25. Specifically, *Traw* does not teach "when transmitting the streaming data from the recording medium to the destination apparatus, the interface circuit... disconnects channels other than the channel used for transmitting the streaming data to the destination apparatus." For at least this reason, claim 25 is allowable over the cited art, as is claim 26 which depends from claim 25.

Claim 27 recites, in part, "the interface circuit exchanges first key information used for the scramble process and a descramble process with the first destination apparatus by performing an authentication process with the first destination apparatus, and exchanges second key information, different from the first key information, used for the scramble process and the descramble process with the second destination apparatus by performing the authentication process with the second destination apparatus."

The Office Action states that column 9, line 59 to column 10, line 2 of *Traw* discloses this feature of Applicants' invention. The authentication and key exchange system of *Traw* is used to authenticate that the partner devices are compliant as shown in column 11, lines 1-23 of *Traw*. The key exchanged by element 604 is unique for each stream of content as shown in column 9, lines 59-62. When multicasting the content, the same key is used to encrypt the content to be transmitted to the plural destination devices.

In claim 27, the authentication is not only to ensure that the partner device is compliant but also to authenticate individual devices using the authentication information precedently built in the devices as shown in Applicants' specification (page 17, lines 5-20). The exchanged key is unique to each destination device. When the stream data is transmitted to plural destination devices, the streaming data is scrambled using a different key for each destination device.

Neither *Traw* nor any of the other cited references, alone or in combination, teach all of the features recited in independent claim 27. Specifically, *Traw* does not teach "the interface circuit exchanges first key information... with the first destination apparatus by performing an authentication process with the first destination apparatus, and exchanges second key information, different from the first key information,... with the second destination apparatus by performing the authentication process with the second destination apparatus."

Claim 27 further recites, in part, "when transmitting the streaming data from the recording medium to the at least first and second destination apparatus, the interface circuit adds to the scrambled streaming data on the first channel the copy control information indicating that the transmitted streaming data may be recorded into a recording device, and the interface circuit

changes the copy control information, adds to the scrambled streaming data on the second channel the copy control information indicating that the transmitted streaming data can not be recorded by a recording device, and deletes the streaming data on the recording medium after the streaming data transmission."

The streaming data playback apparatus of claim 27, transmits the streaming data to the first and second destination apparatuses while changing the copy control information for the destination apparatus. The streaming data and the copy control information are transmitted together.

In *Traw*, the content is transmitted on the encrypted content channel while the copy control information is transmitted on the control channel. (Column 10, lines 10-23).

Neither *Traw* nor any of the other cited references, alone or in combination, teach all of the features recited in independent claim 27. Specifically, *Traw* does not teach "when transmitting the streaming data from the recording medium to the at least first and second destination apparatus, the interface circuit adds to the scrambled streaming data on the first channel the copy control information..., and the interface circuit changes the copy control information, adds to the scrambled streaming data on the second channel the copy control information indicating that the transmitted streaming data can not be recorded by a recording device..."

For at least these reasons, claim 27 is allowable over the cited art, as is claim 28 which depends from claim 27.

Claim 29 recites, in part, "when transmitting the streaming data, the interface circuit changes the copy control information added to the scrambled streaming data depending on a first case that the streaming data is retained on the recording medium after the streaming data transmission and a second case that the streaming data on the recording medium is deleted from the recording medium after transmission of the streaming data."

The Office Action states that paragraph [0038] of *Itoi* discloses that copy-free content are recorded onto a hard disk drive and a time shift of the contents is performed. The

contents are then erased immediately, or whenever necessary. However, time shift enjoyment and data transmission address completely different problems. Furthermore, *Itoi* discloses changing the recording medium of the received contents depending on the copy control code of the received contents. (paragraphs [0038] and [0039])

In claim 29, the streaming data is transmitted to another device and the changed copy control information is transmitted with the streaming data depending on whether the transmitting side (source device) retains or deletes the streaming data. Such deletion of the streaming data of the source device is necessary for accomplishing the move of the streaming data with no more copies. The copy control information is controlled depending on the status of the source streaming data on the transmitting side.

Neither *Traw* nor any of the other cited references, alone or in combination, teach all of the features recited in independent claim 29. Specifically, *Traw* does not teach "when transmitting the streaming data, the interface circuit changes the copy control information added to the scrambled streaming data depending on a first case that the streaming data is retained on the recording medium after the streaming data transmission and a second case that the streaming data on the recording medium is deleted from the recording medium after transmission of the streaming data."

Claim 29 further recites, in part, "when the data transmitted is deleted, the interface circuit interrupts the recording operation and changes the copy control information, and when the interface circuit detects that the transmission of the streaming data fails to proceed, reading of the data is stopped and the data remaining on the recording medium at that moment is retained." This feature is not disclosed in any of the cited references.

For at least these reasons, claim 29 is allowable over the cited art, as is claim 30 which depends from claim 29.

Accordingly, Applicants respectfully request withdrawal of the rejection of claims 20-30.

CONCLUSION

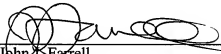
In view of the foregoing, Applicants believe all claims now pending in this application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 206-467-9600.

Respectfully submitted,

3/28/07

Date



John J. Farrell
Reg. No. 57,291

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
206-467-9600 Telephone
415-576-0300 Facsimile

JJF:clm

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